

Curriculum Vitae

Personal information



Surname/First name **DEDIU Valentin,
nickname Alek**

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E-mail **valentin@ismn.cnr.it**

Nationality Italy, Moldavia

Date of birth **06/04/1964**

Gender Male

Occupational field **Director of Research at CNR-ISMN**

Name and address of employer Istituto per lo Studio dei Materiali Nanostrutturati CNR-ISMN
Sez. Bologna, via Gobetti 101 Bologna

Type of business or sector Public research
Occupation or position held Group leader

EDUCATION

Master Thesis (1982) at Moscow Physical Engineering University, specialization in Physics (Superconductivity, Josephson effect)
PhD (1989) at Moscow Physical Engineering University and Lebedev Institute of Physics (FIAN) specialization in Solid State Physics (Superconductivity, Josephson effect)

WORK EXPERIENCE

1982-1984 - junior research associate of Applied Physics Institute, Academy of Sciences, Kishinev, Moldavia
1984-1989 – PhD student at Lebedev Physical Institute, Moscow, Russia
1987- 1993 -research associate at Applied Physics Institute, Kishinev, Moldavia
1993 - senior research at Applied Physics Institute, Kishinev, Moldavia
1993- 1998 - visiting scientist at ICTP, Trieste, Italy
1998-2000 – visiting Professor at ISM-CNR, Bologna, Italy
2001-2007 – permanent position Researcher at CNR-ISMN, Bologna
2007-2020 Senior Researcher at CNR-ISMN, Bologna
Since 2020 Director of Research at CNR-ISMN. Bologna
Present Position: Leader of the Group “Magnetic Nanostructures for Spintronics and Nanomedicine” at CNR-ISMN, Bologna, Italy

MANAGERIAL SKILLS

Head of division in CNR: Responsabile commessa PM.P04.006 “Sistemi nanorganizzati con proprietà elettroniche, fotoniche e magnetiche” in the period 2004-2014, i.e. for the whole period of this organisation scheme at CNR. The budget of the division was typically in the range of 400-600 k€ per year.
In the role of Head of division had various duties, including that of managing the personnel. During that period has engaged via different kind of contracts more than 15 people, among which 3 persons get stabilized in permanent positions by CNR and one got permanent CNR position via public tender.

COMMISSIONS OF TRUST

Journal Editor of “Nanoelectronics and Spintronics”, DE GRUYTER OPEN (2014-2016)

Permanent member of the International Advisory Board of SpinOS - International Conference on Spins in Organic Semiconductors

Permanent member of the Scientific Committee of ECMoIS - European Conference on Molecular Spintronics

International Advisory Board of 3rd International Conference on Spintronics Materials and Technology • June 21 - 23, 2010 - WUN International Conference

Program Committee of Nano and Giga Challenges 2014, Arizona, USA

INTERNATIONAL ADVISORY BOARD of the 13th International Ceramics Congress, 2014, Montecatini, Italy

INTERNATIONAL ADVISORY BOARD of the 5th International Conference Smart and Multifunctional Materials, Structures and Systems, Perugia, Italy, June 5 -9, 2016

INTERNATIONAL ADVISORY BOARD of the 3rd International Conference on Materials and Applications for Sensors and Transducers

European Commission Expert: ID Number E266257 I

Bibliometric parameters

About 150 publications in peer reviewed journals

H-Index:

Google Scholar 37

ISI-WoS 33

Researcher ID F-5365-2011; ORCID 0000-0001-9567-5112

National and EU Projects:

Coordination and WP leadership

Coordinated 5 EC projects:

NMP-CT-2006-033370: OFSPIN – “Organic-Ferromagnetic Hybrid Interfaces for Spintronic Applications”. 1/10/2006 – 30/09/2009, Budget 1.800 k€, 7 partners

NMP-LA-2008-214685: MAGISTER – “Magnetic Scaffolds for in vivo Tissue Engineering”, 1/12/2008 – 30/01/2012, Budget 8.278 k€, 20 partners – Large Scale Project

NMP3-SL-2011-263104: HINTS – “Next Generation Hybrid Interfaces for Spintronic Applications”. 1/06/2011 – 31/05/2014, Budget 3.874 k€, 14 partners

ICT-03-2016-732678: MADIA – “Magnetic Diagnostic Assay for Neurodegenerative Diseases”, 1/01/2017 – 31/03/2020, Budget 3.891 k€, 10 partners

FET-OPEN-2021-965046: INTERFAST – “Gated INTERfaces for FAST information processing” 1/05/2021-30/04/2024, Budget 3.190 k€, 8 Partners

Leader of the WP1 Spintronics involving about 100 researchers from Europe in EC COST-MOLSPIN, 2016-2020

Responsibility in INTERNATIONAL SCIENTIFIC MEETINGS

2005 Leader of the Local Organizing Committee of **Quantum Transport 2005** International Conference, Bologna, Italy 2005

2007 Promoter and **Chair of the Program Committee** of the first International Organic Spintronic Conference **SpinOS**, 2007, Bologna, Italy (followed by Salt Lake City 2009, Amsterdam 2010, London 2012, Himeji, Japan 2014, Chicago 2016)

2013 Chair of the Satellite **Symposium MNBA** - Magnetic Nanomaterials for Biomedical Applications at MiMe (Materials in Medicine) Conference, 2013, Faenza, Italy

2015 **Chair of MAGNET 2015** – International Conference promoted by Italian Magnetic Society

2016 **Chair of ECMoIS 2016** – First European Conference on Molecular Spintronics

2024 **Chair of ICM 2024** – nominated by IUPAP chair of the most important magnetic conference – the International Conference on Magnetism, to be held in Bologna, July 2024

Chair of symposia at: JEMS 2008, MRS 2009, EMRS 2009, EMRS 2013, JEMS 2018

Activity in National and International Working groups

2017 – **Member of Panel for the Assignment of the Olivier Kahn International Award** for young talented scientists working in Europe in the field of Molecular Magnetism and closely related disciplines.

Since 2016 represents CNR in the **European non-profit network SpintronicFactory**, the pan-European network grouping together most spintronic EU laboratories and Industries (assigned by CNR President on 01/09/2016, protocol N0057630)

Since 2016 Chair of working group in **EUMAT, WG 7 Biomaterials**

Member of Working Group HEALTH - CNR Science & Technology Foresight Group

Periodic Member of the Expert Group for Industrial Research, Innovation and Technological Transfer (Emilia-Romagna Region)

In 2008-2010 **Member of the Roadmapping group of the European Commission** for the development of the programming document "Research Road Mapping in Materials"
EC Expert: ID Number E266257 I

More than 60 Plenary, Semi-Plenary, Key Note and Invited presentations

Invited presentations

REVIEWING DUTIES

Frequent reviewer of: Nature, Nature Materials, Nature Physics, Nature Nanotechnology, Nature Communications, Science, Advanced Materials, Advanced Functional Materials, PRB, PRL and many others.

Reviewer of National research projects in France, UK, USA, Switzerland, Netherlands, Hong Kong.

External reviewer of one Habilitat (France) and many PhD Theses in various EU countries.

Selected Publications

- L.E. Hueso, I. Bergenti, A. Riminucci, Y. Zhan and V. Dediu "Multipurpose magnetic organic hybrid devices", **Advanced Materials** 19, 2639 – 2642 (2007)

- V. Dediu, L. E. Hueso, I. Bergenti, C. Taliani, "Spin routes in organic semiconductors" **NATURE MATERIALS** 8, 707 - 716 (2009)

- C. Barraud, P. Seneor, R. Mattana, S. Fusil, K. Bouzouane, C. Deranlot, P. Graziosi, L. Hueso, I. Bergenti, V. Dediu, F. Petroff and A. Fert "Unravelling the role of the interface for spin injection into organic semiconductors", **NATURE PHYSICS** 6, 615-620 (2010)

- M. Prezioso, A. Riminucci, I. Bergenti, P. Graziosi, D. Brunel, and V. A. Dediu "Electrically programmable magnetoresistance in multifunctional organic based spin-valve devices", **Advanced Materials** 23, 1371–1375 (2011)

- M. Prezioso, A. Riminucci, I. Bergenti, P. Graziosi, R. Rakshit and V. A. Dediu "A Single-Device Universal Logic Gate Based on a Magnetically Enhanced Memristor", **Advanced Materials** 25, 534–538 (2013)

- A. V. Shumilin, V. V. Kabanov, and V. A. Dediu "Magnetoresistance in organic spintronic devices: the role of nonlinear effects", **New J. Phys.** 17 (2015) 023019

- L. Poggini, V. Alek Dediu, Roberta Sessoli "An organic spin valve embedding a self-assembled monolayer of organic radicals" **Advanced Material Interfaces** 2016, 1500855

- M Cinchetti, VA Dediu, L Hueso, Activating the Molecular Spinterface, **NATURE MATERIALS** 16, 507-515 (2017)

- Juan Pablo Prieto-Ruiz, ..., Valentin Alek Dediu, Eugenio Coronado, "Enhancing Light Emission in Interface Engineered Spin-OLEDs through Spin-Polarized Injection at High Voltages", **Advanced Materials** 31, 1806817 (2019)